

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-232-24

Relating to Certification of New Heavy-Duty Motor Vehicle Engines

RENAULT VEHICULES INDUSTRIELS

Pursuant to the authority vested in the Air Resources Board by Sections 43100, 43102 and 43103 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That the following 1997 model-year Renault Vehicules Industriels diesel-cycle engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 14,000 pounds:

Fuel Type: Diesel

<u>Engine Family</u>	<u>Engine Displacement Liters (Cubic Inches)</u>	<u>Exhaust Emission Control Systems and Special Features</u>
VR3377D8DAAW	6.2 (337)	Turbocharger Charge Air Cooler Engine Control Module Smoke Puff Limiter Oxidation Catalytic Converter

Engine models and codes are listed on attachments.

The following are the certification exhaust emission standards for this engine family in grams per brake horsepower-hour:

<u>Total Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Particulates</u>
1.3	15.5	5.0	0.10

The following are the certification exhaust emission values for this engine family in grams per brake horsepower-hour:

<u>Total Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Particulates</u>
0.4	2.8	4.8	0.08

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Section 2035 et seq.).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this order and attachments.

Executed at El Monte, California this 11th day of February 1997.

A handwritten signature in black ink, appearing to read 'R. B. Summerfield', with a long horizontal flourish extending to the right.

R. B. Summerfield, Chief
Mobile Source Operations Division

Manufacturer: RENAULT VI Engine Family: VR3377D8DAAW..
Displacement: / 6.2 Liters 377 / Cubic Inches
All Eng Codes in Eng Family: CA 49S 50S X Strokes/Cycle: 4 Valves/Cylinder: 2
Ignition: Compression X Compression with Glow Plug _____ Spark _____
Fuel Type(s): Dedicated X Flex-Fuel _____ Dual-Fuel _____ Bi-Fuel _____ Diesel X CNG _____
LNG LPG M85 M100 Other (specify) _____
Diesel Cert Fuel: 13 CCR 2282 _____ 40 CFR 86.1313-90 _____ 40 CFR 86.1313-94 X
Maximum Rated Power: 190 HP @ 2500 RPM Engine Configuration: I-6
Exhaust ECS (e.g., OC, EGR, PTOX, IFI, TC, CAC): TC; CAC; SPL; OC, ECM
(Use abbreviations per SAE J1930 SEP91)

Engine Model (Eng Code)	Rated HP @ RPM	Fuel Rate @ $\frac{1}{3}$ Rated HP mm / stroke (lbs/hr)	Fuel Pump & Injector Part No.	ECM/PCM Part No.	EGR Valve Part No.	PTOX / Catalytic Converter Part No.
MIDR060226 L511	190 at 2500	87 +/- 3 (71.4)	<u>PUMP</u> BOSCH PES6P 120A 320RS8028 <u>REGULATOR</u> BOSCH RQV275- 1250PA1125K <u>INJECTOR</u> <u>ASSEMBLY</u> BOSCH 0432133850 <u>NOZZLE</u> BOSCH DLLA149P427 <u>HOLDER</u> BOSCH KDEL 75P46	<u>ELECTRONIC</u> <u>AUTO ADVANCE</u> RENAULT VI 5010691980 <u>ECM</u> RENAULT VI 5010214430 or 5010271166 <u>SOFTWARE</u> RENAULT VI 5010258153 or 5010339228 <u>OIL SOLENOID</u> <u>VALVE</u> RENAULT VI 5000691292 or 5010339123		<u>CATALYST</u> ENGELHARD P217350 6" <u>MUFFLER</u> DONALDSON DC M 100785 RENAULT VI 5010230455

Date Issued: OCT 96

Revisions: